

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions of claims in the application.

1. (Currently amended): A substrate having an organic thin film, characterized in that: a buffer layer and the organic thin film are sequentially deposited on a substrate so that the organic thin film overlies the buffer layer, ~~and said buffer layer accelerates two dimensional growth of said organic thin film, and orients said organic thin film flatly;~~

wherein said substrate is an insulating substrate, said buffer layer consisting essentially of either pentacene or pentacene fluoride; [[[and]]] said organic thin film is either C_n fullerene (wherein n is an integer of 60 or more) or rubrene and said organic thin film is a two dimensional film.

2. (Previously presented): The substrate having an organic thin film as set forth in claim 1, characterized in that a layer easily oriented with said buffer layer is further inserted between said substrate and said buffer layer.

3. (Cancelled).

4. (Previously presented): The substrate having an organic thin film as set forth in claim 1, characterized in that said insulating substrate is a sapphire substrate and said C_n fullerene is C₆₀.

5. (Previously Presented): The substrate having an organic thin film as set forth in claim 4, characterized in that the surface of said sapphire substrate is flattening-treated, and said buffer layer consists of either pentacene or pentacene fluoride deposited as a molecular layer unit.

6. (Currently amended): A transistor provided with an organic thin film formed on a substrate, characterized in that: said organic thin film is deposited on said substrate via a buffer layer ~~accelerating two dimensional growth of said organic thin film~~, and orienting said organic thin film flatly; wherein said substrate is an insulating substrate said buffer layer consisting essentially of either pentacene or pentacene fluoride; wherein the organic thin film overlies the buffer layer; ~~[[and]]~~ said organic thin film is either C_n fullerene (where n is an integer of 60 or more), or rubrene; and said organic thin film is a two dimensional film.

7. (Original): The transistor as set forth in claim 6, characterized in that a layer easily oriented with said buffer layer is further inserted between said substrate and said buffer layer.

8. (Cancelled)

9. (Currently Amended): The transistor as set forth in claim ~~[[9]]~~ 6, characterized in that said insulating substrate is a sapphire substrate, and said C_n fullerene is C_{60} .

10. (Previously Presented): The transistor as set forth in claim 9, characterized in that the surface of said sapphire substrate is flattening-treated, and said buffer layer consists of either pentacene or pentacene fluoride deposited as a molecular layer unit.

11. (Withdrawn): A method of manufacturing a substrate having organic thin film, characterized in that:

it includes a process of sequentially depositing a buffer layer and organic thin film on a substrate, and

said buffer layer orients said organic thin film.

12. (Withdrawn): The method of manufacturing a substrate having organic thin film as set forth in claim 11, characterized in that a layer easily oriented with said buffer layer is further inserted between said substrate and said buffer layer.

13. (Withdrawn): The method of manufacturing a substrate having organic thin film as set forth in claim 11, characterized in that said substrate is an insulating substrate, said buffer layer is acene system aromatics or its derivative, said organic thin film is either C_n fullerene (where n is an integer of 60 or more), C_n fullerene derivative, or rubrene.

14. (Withdrawn): The method of manufacturing a substrate having organic thin film as set forth in claim 13, characterized in that said insulating substrate is a sapphire substrate, said acene system aromatics is either pentacene or pentacene fluoride, and said C_n fullerene is C_{60} .

15. (Withdrawn): The method of manufacturing a substrate having organic thin film as set forth in claim 14, characterized in that the surface of said sapphire substrate is flattening-treated, and said buffer layer consisting of either pentacene or pentacene fluoride is deposited by molecular layer unit.

16. (Withdrawn): A method of manufacturing a transistor provided with organic thin film formed on a substrate, characterized in that:

said organic thin film is deposited on said substrate via the buffer layer orienting said organic thin film.

17. (Withdrawn): The method of manufacturing a transistor as set forth in claim 16, characterized in that a layer easily oriented with said buffer layer is further inserted between said substrate and said buffer layer.

18. (Withdrawn): The method of manufacturing a transistor as set forth in claim 16, characterized in that said substrate is an insulating substrate, said buffer layer is acene system

aromatics or its derivative, said organic thin film is either C_n fullerene (where n is an integer of 60 or more), C_n fullerene derivative, or rubrene.

19. (Withdrawn): The method of manufacturing a transistor as set forth in claim 18, characterized in that said insulating substrate is a sapphire substrate, said acene system aromatics is either pentacene or pentacene fluoride, and said C_n fullerene is C_{60} .

20. (Withdrawn): The method of manufacturing a transistor as set forth in claim 19, characterized in that the surface of said sapphire substrate is flattening-treated, and said buffer layer consisting of either pentacene or pentacene fluoride is deposited by molecular layer unit.

21. (Currently amended): A substrate having an organic thin film, characterized in that: a buffer layer and an organic thin film are sequentially deposited on the substrate so that the organic thin film overlies the buffer layer, said buffer layer consists essentially of either pentacene or pentacene fluoride, said buffer layer ~~accelerates two dimensional growth of said organic thin film, and~~ orients said organic thin film flatly, and said organic thin film is a two dimensional film.

22. (Currently amended): A substrate having an organic thin film, characterized in that: a buffer layer and an organic thin film are sequentially deposited on the substrate so that the organic thin film overlies the buffer layer, said buffer layer consists essentially of either

pentacene or pentacene fluoride, said organic thin film is either C_n fullerene (where n is an integer of 60 or more) or rubrene, said buffer layer ~~accelerates two dimensional growth of said organic thin film, and~~ orients said organic thin film flatly, and said organic thin film is a two dimensional film.

23. (Currently amended): A transistor, characterized in that: it is a transistor having an organic thin film formed on a substrate, said organic thin film is deposited on said substrate via a buffer layer consisting essentially of either pentacene or pentacene fluoride, said buffer layer ~~accelerating two dimensional growth of said organic thin film, and~~ orienting the organic thin film flatly, wherein the organic thin film overlies the buffer layer, and said organic thin film is a two dimensional film.

24. (Currently amended): A transistor, characterized in that: it is a transistor having an organic thin film formed on a substrate, said organic thin film is deposited on said substrate via a buffer layer consisting essentially of either pentacene or pentacene fluoride, said buffer layer ~~accelerating two dimensional growth of said organic thin film, and~~ orienting the organic thin film flatly, and said organic thin film is either C_n fullerene (where n is an integer of 60 or more) or rubrene, wherein the organic thin film overlies the buffer layer, and said organic thin film is a two dimensional film.